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# China, Peoples Republic of Asparagus Annual 2008

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## **Report Highlights:**

China's marketing year 2009 production is forecast at 300,000 metric tons (MT), a 14 percent decline from the 2008 estimate of 350,000 metric tons (MT). Production in 2009 is forecast to decline because of shrinking acreage as a result of poor returns in 2008, especially for green asparagus, and decreased demand in China's export markets. China's canned/jarred asparagus exports are estimated at 90,000 MT in 2008, an eight-percent decline from 2007, the result of declining global demand for Chinese asparagus.

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### **Executive Summary**

As the world's largest asparagus producer, China's marketing year 2009<sup>1</sup> production is forecast at 300,000 metric tons (MT), a 14 percent decline from the 2008 estimate of 350,000 metric tons (MT). Production in 2009 is forecast to decline because of shrinking acreage as a result of poor returns in 2008, especially for green asparagus, and decreased demand in China's export markets. Exports face mounting challenges due to: 1) Government of measures to discourage exports of all goods (agricultural and non-agricultural) to balance China's overall trade surplus; 2) the Chinese Renminbi continues to appreciate, making asparagus exports to Europe (China's primary export market) more expensive; and 3) dramatically increasing costs at input, including labor, water, electricity, fertilizer, pesticide, and fuel. China's canned/jarred asparagus exports are estimated at 90.000 MT in 2008, an eight-percent decline from 2007, the result of declining global demand for Chinese asparagus and Government of China export controls.

#### Production

#### Production Forecast to Continue to Decline

China's fresh asparagus production in marketing year 2009 is forecast at 300,000 metric tons (MT), a 14 percent decline from the 2008 estimate of 350,000 metric tons (MT), which was down 12 percent from the previous year. Production in 2009 is forecast to decline because of shrinking acreage as a result of poor returns in 2008, especially for green asparagus. Market intelligence collected from local industry sources indicates that many asparagus farmers, especially green asparagus farmers, converted land to other crops such as corn in May to June 2008, because of low asparagus prices and increases in grain subsidies. China's government has long pursued self-sufficiency in grain production, and this policy is stripping land away from other crops.

The forecast decline in production is also attributed to decreased demand in China's traditional asparagus export markets. This decline is turning 2008 into a challenging year for the local asparagus industry. More than 80 percent of China's asparagus crop is processed for export, however, exports face mounting challenges due to: 1) Government measures to discourage exports of all goods (agricultural and non-agricultural) to balance China's overall trade surplus; 2) the Chinese Renminbi continues to appreciate, making asparagus exports to Europe (China's primary export market) more expensive; and 3) dramatically increasing costs at input, including labor, water, electricity, fertilizer, pesticide, and fuel, the price of which, increases transportation, processing, and marketing costs.

In the spring of 2008, the price of green asparagus ranged between U.S. \$0.20-0.30/1bs (3-4 RMB/kg), half the price of the 2007 crop, mainly because of declining demand from processors who rely on exports for most of their revenue. Based on industry sources, FAS/Beijing estimates the cost for planting asparagus is about U.S. \$3,000/ha, (1,400 RMB/mu, 1ha=15mu). The cost is around RMB4.7/kg, the asparagus price in 2008 is below the cost of production. Please refer to the table below for specific input costs. These costs do not include the land leasing rate, which is usually U.S. \$1,285-1,500/ha (600-700 RMB/mu).

Price of Inputs for Asparagus Production (RMB/mu)

Fertilizer	Pesticide	Water	Labor	Total
400	200	100	700	1,400

<sup>&</sup>lt;sup>1</sup> The marketing year for asparagus is January – December. There are no official statistics for asparagus in China. All production and consumption data are estimated by FAS/Beijing based on analysis of industry sources.

#### Record High Prices in 2007 Impacted 2008 Production

Shanxi, Shandong, Hebei, Henan, and Fujian provinces are the major asparagus producers in China. Together, they account for a combined total of 80 percent of China's asparagus production. In 2008, China's asparagus acreage is estimated at 120,000 hectares, of which, 80,000 hectares are available for harvest. The average yield in 2008 is estimated at less than five MT/ha, relatively smaller than normal as farmers are using fewer inputs and employing sub-optimal management techniques following the low returns in 2008. Overharvesting (cutting the asparagus stalk too close to the base, to increase bulk weight) also contributed to the low yield in 2008. In 2007, record high prices ranging between U.S. \$0.40-60/lbs (8-10 RMB/kg), driven by strong demand in the international market resulted in this over-harvesting. Over-harvesting decreases the flow of nutrients required for the sprout's growth and development and results in lower yields during the next harvest period.

#### China Producing More Green Asparagus

The share of green asparagus in China's total asparagus production is increasing, due to stronger consumer demand for this variety. Industry sources indicate that green asparagus now accounts for about 50 percent of China's total 2008 production, compared to 30 percent in 2005. White asparagus for processing (canned/jarred) is the traditional variety grown in China, but changing consumption trends have prompted farmers to plant more green asparagus.

#### Seed Quality Impacts Yield

China has the largest asparagus planted area in the world, but yields lag behind other asparagus producers like Peru, largely because of differences in seed quality and field management techniques. Farmers use both imported seeds (80 percent) and local seeds (20 percent). Imported seeds include "Atlas," "Jersey Knight," "Apollo," and "Grand" from the United States, and some other seed varieties from Germany, Spain, and the Netherlands. The China Asparagus Research Center in Weifang, Shandong Province also cultivates quality breeds such as "Champion," "Fruition," and "Prince."

F1 seeds generate higher yields but are significantly more expensive, about U.S. \$510/1bs (8,000 RMB/kg). For many of China's farmers, the choice to use F1 seeds requires producers to seek financial support from outside sources, such as foreign companies or local/regional investors. F2 seeds provide a lower cost alternative, about U.S. \$26/1bs (400 RMB/kg), but have a lower yield, and are prone to disease. One hectare of green asparagus production requires 1,050-1,200g seeds; while one hectare of white asparagus production needs only 750-900g seeds, because of differences in planting distance required for these two varieties. Industry sources indicate that F2 seeds are planted on 70-80 percent of China's total asparagus acreage. Post interviews revealed complaints from some farmers that seed quality is not guaranteed. Occasionally farmers pay the F1 price, but receive F2 seeds as farmers cannot distinguish between the two different seeds based on appearance. In China, there is no regulatory authority that oversees or controls the sale of asparagus seeds. This is the top concern among China's asparagus industry. The seed is the most important input, as each seed can be harvested for many years and the differences between F1 and F2 seeds are not revealed until two-three years after planting.

#### Processina

China's white asparagus is usually used for canned/jarred processing and eventual sale to the European market, while green asparagus is usually used for frozen/chilled processing bound for the Asian market, such as Japan and South Korea. In China, 1.5-1.6 MT of fresh asparagus can produce one MT canned asparagus, which means the output rate is less than 70 percent. According to preliminary industry statistics, there are 50-60 processors that produce canned/jarred asparagus, most of them located in Shandong, Shanxi, and Fujian provinces. Previously it was only a lack of supply that hindered growth in China's asparagus

processing industry. Recent market influences have changed however, and now a lack of demand and the recent Chinese Government policies that discourage exports have a larger impact on processing output.

#### Processing Declines in 2008

Industry and trade contacts indicate that China's canned/jarred asparagus production in 2008 declined 30 percent from 2007 because of high stocks accumulated in 2007 and lack of capital availability. Chinese canned asparagus exporters had an excellent year in 2007 with a record high average export price of U.S. \$1.21 / lbs (\$2.69/kg), 40 percent higher than 2006, and more than double the 2005 price. The high price was the result of worldwide production decline in 2006 because of poor harvests in major production areas caused by unfavorable weather conditions. The high price also resulted in increased stocks by the end of 2007 because processors made every effort to produce canned/jarred asparagus to capitalize on the high profit margin. In addition to high beginning stocks, production in 2008 was also limited by the central government's implementation of a tighter credit policy in the banking sector to cool off the economy, which made it more difficult for asparagus processors to access loans from banks. Industry sources report that nearly 30 percent of processors in Shanxi Province did not produce in 2008 because of financial difficulties, discouraging export policies, and tighter lending terms imposed by the private lending sector.

#### Trade

#### Canned/Jarred Asparagus Exports to Decrease

China's canned/jarred asparagus (H.S. code: 200560) exports are estimated at 90,000 MT in 2008, an eight-percent decrease from 97,903 MT in 2007, mainly due to the Chinese government's export controls, coupled with declining demand in the export market. Industry sources indicate that the central government has implemented measures to limit China's total exports (both agricultural and non-agricultural) to balance the overall trade surplus. Local quarantine authorities (CIQs) have increased inspections on products destined for export and are more strictly implementing standards.

# Frozen Asparagus Exports to Decrease

China's frozen asparagus (H.S.code: 07108090) exports in 2008 are estimated at 40,000 MT, a 40-percent decline from 2007 because Japan (China's largest frozen asparagus market) has limited China's frozen asparagus imports due to pesticide issue. Japan, the largest buyer of China's frozen/chilled green asparagus, announced that 30 percent of asparagus products from China would be subject to pesticide residue inspections beginning in November 2007. In recent years some China-origin asparagus could not meet Japan's maximum residue level (MRL) standards for some pesticides.

According to processors, input costs have increased dramatically since 2007. Labor costs, for example, have doubled since 2006: worker's salary increased from RMB700-800/month in 2006 to RMB1500-1600/month in 2008. Overall inflation in China and the appreciation of the Renminbi also limit the competitiveness of China's asparagus in the international market.

#### Marketing and Consumption

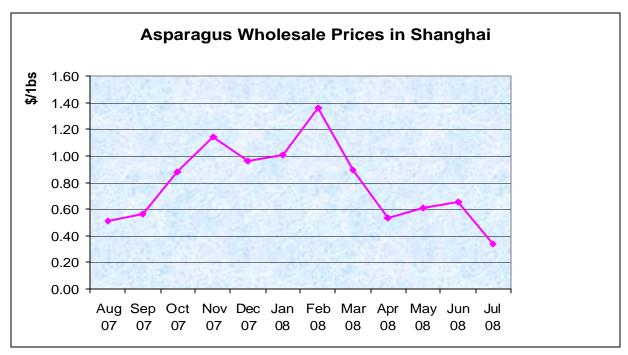
#### Chinese Consumers do not yet Realize Health Benefits

More than 70 percent of China's asparagus are processed for export. Most Chinese consumers do not include asparagus in their daily meals because it is not traditionally a part of the Chinese diet and there is a general lack of knowledge about asparagus's health benefits among consumers. Asparagus is rich in amino acids, texture protein, and vitamins that are believed to be helpful in preventing cancer, heart disease, and hypertension. However, most Chinese consumers have yet to discover the health benefits of asparagus.

# Industry Looks to Expand in Domestic Market

China's asparagus industry has recognized the risk of depending too heavily on the export market and is exploring further opportunities in the domestic market. With a population of 1.3 billion consumers, China is a potentially large market for any product and asparagus is no exception. Large cities such as Shanghai, Beijing, and Guangzhou with higher incomes and more sophisticated consumers who place greater importance on foods with health benefits represent a potential market for asparagus. More thought should be given to a marketing campaign that includes cooking shows and menu promotions so consumers can learn how to incorporate asparagus into Chinese style dishes, or learn how to use them in Western style cuisine. Additionally, greater effort should be focused on educating consumers about the health benefits and nutritional attributes of asparagus.

The harvest season for fresh asparagus in open fields in China is from April to August, but asparagus is available year round in the market thanks to off-season greenhouse production.



Source: Food Management Office, Shanghai Economic Committee

# **Statistics Table**

Table 1. Fresh asparagus PS&D table

PSD Table						
Country	China					
Commodity	Asparagus, Fresh				(HA)(MT)	
	2007	Revised	2008	Estimate	2009	Forecast
	USDA	Post	USDA	Post	USDA	Post
	Official	Estimate	Official	Estimate	Official	Estimate[New]
	[Old]	[New]	[Old]	[New]	[Old]	
Market Year Begin		01/2007		01/2008		01/2009
Area Planted	0	100000	0	120000	0	100000
Area Harvested	0	70000	0	80000	0	70000
TOTAL Production	0	400000	0	350000	0	300000
Imports, Fresh	0	0	0	0	0	0
TOTAL SUPPLY	0	400000	0	350000	0	300000
Exports, Fresh	0	1051	0	700	0	800
Domestic Fresh	0					
Market		70000	0	75000	0	70000
For Processing	0	328949	0	274300	0	229200
TOTAL UTILIZATION	0	400000	0	350000	0	300000

Table 2. Canned asparagus exports

Metric Tons						
H.S. 200560						
	1st	2nd Qtr	3rd	4th	1st Qtr	2nd
Country	Qtr 2007	2007	Qtr 2007	Qtr 2007	2008	Qtr 2008
Spain	2,982	7,493	19,142	8,944	2,214	8,233
Germany	870	4,041	8,341	3,261	773	3,034
Netherlands	620	1,337	13,310	2,969	140	1,477
France	813	723	3,260	2,129	1,137	1,023
Denmark	324	243	1,904	719	453	341
Japan	250	620	804	320	109	331
Australia	345	530	947	965	142	310
Sweden	119	220	651	377	133	273
Belgium	64	198	924	598	144	190
Switzerland	32	16	42	193	36	171
United						
States	33	96	251	127	111	151
Brazil	91	66	423	205	158	149
Indonesia	37	123	276	72	126	139
Others	591	744	2,083	1,046	1,032	1,027